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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,003	03/24/2000	Nobuyuki Kihara	450100-02409	2770

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EXAMINER

SHERKAT, AREZOO

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 03/05/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/535,003

Applicant(s)

KIHARA ET AL.

Examiner

Arezoo Sherkat

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2000.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8, 10-19 and 21-24 is/are rejected.
7) ☒ Claim(s) 9 and 20 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-24 have been presented for examination.

Allowable Subject Matter

Claims 9 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-8, 13-16, 18-19, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lida, (U.S. Patent No. 6,278,678 and Lida hereinafter), in view of Kihara et al., (U.S. Patent No. 6,404,676 and Kihara hereinafter).

Regarding claim 1, Lida discloses an editing apparatus for editing data files recorded in a nonvolatile memory, wherein the nonvolatile memory comprises a data area for recording said data files, each of said data files being recorded in blocks of a predetermined data length along with an attribute file of a predetermined length, and a management area for recording management data for managing said data files.

Lida does not expressly disclose the process of combining two files although it discloses editing management header.

However, Kihara discloses the editing apparatus comprising:

operating means for selecting two of said data files to be combined , separating means for separating a backward attribute file from a backward side data file of the selected two data files (Col. 14, lines 19-67 and Col. 15, lines 1-49);

Lida further discloses the editing apparatus comprising:

editing means for editing the management data recorded in the management area so as to logically link the selected two data files and for editing a forward attribute file (i.e., TOC frame of the management header)corresponding to a forward side data file of the selected two data files (i.e., it is interpreted by the office that the process of accessing and updating the management header is the same for both dividing a file into two or combining two files into one file)(Col. 23, lines 55-67 and Col. 24, lines 1-50); and

recording means for recording the edited management data to the management area and recording the edited forward attribute file to the data area (i.e., a new cluster link is formed so that the original single file can be divided into two files by using the cluster including the divide point which was newly copied in step F103 and the cluster including the management header)(Col. 23, lines 55-67 and Col. 24, lines 1-55).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida with the teachings of Kihara to include the process of combining two files with the motivation to combine two

tracks into one track and reduce the number of tracks by one (Kihara, Col. 15, lines 10-30).

Regarding claim 13, Lida discloses an editing method for editing data files recorded in a nonvolatile memory, wherein the nonvolatile memory comprises a data area for recording said data files, each of said data files being recorded in blocks of a predetermined data length along with an attribute file of a predetermined length, and a management area for recording management data for managing said data files.

Lida does not expressly disclose the process of combining two files although it discloses editing management header.

However, Kihara discloses the editing method comprising the steps of:

selecting two of said data files to be combined, separating a backward attribute file from a backward side data file of the selected two data files (Col. 14, lines 19-67 and Col. 15, lines 1-49);

Lida further discloses the editing method comprising the steps of:

editing the management data recorded in the management area so as to logically link the selected two data files, editing a forward attribute file (i.e., TOC frame of the management header) corresponding to a forward side data file of the selected two data files (i.e., it is interpreted by the office that the process of accessing and updating the management header is the same for both dividing a file into two or combining two files into one file)(Col. 23, lines 55-67 and Col. 24, lines 1-50); and

recording the edited management data to the management area, and recording the edited forward attribute file to the data area (i.e., a new cluster link is formed so that the original single file can be divided into two files by using the cluster including the divide point which was newly copied in step F103 and the cluster including the management header)(Col. 23, lines 55-67 and Col. 24, lines 1-55).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida with the teachings of Kihara to include the process of combining two files with the motivation to combine two tracks into one track and reduce the number of tracks by one (Kihara, Col. 15, lines 10-30).

Regarding claim 14, Lida discloses an editing apparatus for editing data files recorded in a nonvolatile memory, wherein the - nonvolatile memory comprises a data area for recording said data files, each of said data files being recorded in blocks of a predetermined data length along with an attribute file of a predetermined length, and a management area for recording management data for managing said data files, the editing apparatus comprising:

operating means for setting a divide point in a data file recorded in the data area (Col. 23, lines 55-67 and Col. 24, lines 1-20);

editing means for editing, according to said divide point, the management data and an original attribute file (i.e., data stored in the cluster at the head of the file

including a management header) corresponding to the data file wherein said divide point is set (Col. 24, lines 20-55);

generating means for generating a new attribute file (i.e., TOC frame of the management header) for designating a separate data file on a backward side of the divide point (i.e., the original file before the divide point), and recording means for recording the edited management data to the management area, and recording the edited original attribute file to the data area (Col. 24, lines 42-45).

Regarding claim 24, Lida discloses an editing method for editing data files recorded in a nonvolatile memory, wherein the nonvolatile memory comprises a data area for recording said data files, each of said data files being recorded in blocks of a predetermined data length along with an attribute file of a predetermined length, and a management area for recording management data for managing said data files, the editing method comprising the steps of:

setting a divide point in a data file recorded in the data area (Col. 23, lines 55-67 and Col. 24, lines 1-20);

editing, according to said divide point, the management data and an original attribute file (i.e., data stored in the cluster at the head of the file including a management header) corresponding to the data file wherein said divide point is set (Col. 24, lines 20-55);

generating a new attribute file (i.e., TOC frame of the management header) for designating a separate data file on a backward side of the divide point (i.e., the original

file before the divide point), recording the edited management data to the management area, and recording the edited original attribute file to the data area (Col. 24, lines 42-45).

Regarding claims 2 and 15, Lida discloses wherein a file allocation table is recorded in the management area (Col. 24, lines 55-67 and Col. 25, lines 1-67 and Col. 26, lines 1-67).

Regarding claims 3 and 16, Lida does not expressly disclose wherein reproduction management data representing at least a number of total data files is recorded in the data area.

However, Kihara discloses wherein reproduction management data representing at least a number of total data files is recorded in the data area (Col. 2, lines 4-29).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida with the teachings of Kihara to include back up data files with the motivation to allow a file to be recovered even if a file management table is destroyed without need to make a back up file (Kihara, Col. 1, lines 57-61).

Regarding claim 5, Lida discloses wherein each of the attribute files recorded in the data area comprises size data representing a total amount of data within a data file (Col. 15, lines 44-55); and

said editing means sums the size data of the forward attribute file with size data of the backward attribute file (i.e., in step F106, the size of data frame in TOC frame recorded in file header gets updated)(Col. 24, lines 42-50).

Regarding claim 18, Lida discloses wherein each of the attribute files recorded in the data area comprises size data representing a total amount of data within a data file (Col. 15, lines 44-55); and

said editing means edits the size data of the original attribute file according to size data of the new attribute file (Col. 24, lines 42-50).

Regarding claim 6, Lida discloses further comprising means for designating the separated backward attribute file as a recordable file (i.e., data frame in TOC frame which is recorded in is updated as a step of dividing process, F106)(Col. 24, lines 40-50).

Regarding claim 7, Lida discloses wherein said editing means edits the forward attribute file according to the backward attribute file (i.e., data frame in TOC frame which is recorded in is updated as a step of dividing process, F106 and F107)(Col. 24, lines 40-50).

Regarding claims 8 and 19, Lida discloses wherein each of the data files recorded in the data area comprises at least one part (i.e., data portion)(Col. 25, lines 35-67).

Lida does not expressly disclose wherein each of the attribute files recorded in the data area comprises part data representing a number of parts in a data file.

However, Kihara discloses wherein each of the data files recorded in the data area comprises at least one part (i.e., ATRAC3DATA), and each of the attribute files recorded in the data area comprises part data representing a number of parts (i.e., NM1, NM2, TRKINF, PRTINF, and INF) in a data file (Col. 13, lines 57-67 and Col. 14, lines 1-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida with the teachings of Kihara to include attribute files containing information about data files with the motivation to allow a file to be recovered even if a file management table is destroyed without need to make a back up file (Kihara, Col. 1, lines 57-61).

Claims 4, 17, 10-12, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lida, (U.S. Patent No. 6,278,678 and Lida hereinafter), in view of Kihara et al., (U.S. Patent No. 6,404,676 and Kihara hereinafter), in further view of Shimizu et al., (U.S. Patent No. 6,085,323 and Shimizu hereinafter).

The teachings of Lida and Kihara have been discussed before.

Regarding claims 4 and 17, Lida does not expressly disclose wherein each of the attribute files recorded in the data area comprises key data for encrypting a data file.

Kihara discloses wherein each of the attribute files recorded in the data area comprises key data for encrypting a data file (Col. 12, lines 10-26 and Col. 14, lines 12-19).

Lida or Kihara does not expressly disclose said editing apparatus further comprising means for rewriting key data of an attribute file if a data file corresponding to said key data is edited.

However, Shimizu discloses wherein each of the attribute files recorded in the data area comprises key data for encrypting a data file, said editing apparatus further comprising means for rewriting key data (i.e., encryption key/temporary key) of an attribute file (i.e., file header) if a data file corresponding to said key data is edited (i.e., according to Shimizu, files are stored in the storage device in an encrypted form with the corresponding encryption key in the file header. If a file is to be accessed by an authorized user, the encryption key is retrieved from the header and the data portion is decrypted so user can access the content. At the time of storing the accessed/edited file, the data portion gets encrypted again, the encryption key will also get encrypted using master key and stored in the file header of the corresponding file)(Col. 7, lines 10-67 and Col. 8, lines 1-19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida and Kihara with the teachings of Shimizu to include the capability to store files in encrypted form with the

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corresponding encryption key in the file header with the motivation to provide for the capability of storing data shared by plurality of users in an efficiently and safely encrypted form (Shimizu, Col. 2, lines 35-40).

Regarding claims 10 and 21, Lida does not expressly disclose wherein each of the attribute files recorded in the data area comprises part key data for encrypting a part in a respective data file.

Kihara discloses that the header contains an initial value for decrypting encrypted data (Col. 12, lines 10-26 and Col. 14, lines 12-19).

Kihara does not expressly disclose wherein each of the attribute files recorded in the data area comprises part key data for encrypting a part in a respective data file.

However, Shimizu discloses wherein each of the attribute files (i.e., header file) recorded in the data area comprises part key data (i.e., encrypted temporary key) for encrypting a part in a respective data file (i.e., data portion)(Col. 7, lines 10-67 and Col. 8, lines 1-19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida and Kihara with the teachings of Shimizu to include the capability to store files in encrypted form with the corresponding encryption key in the file header with the motivation to provide for the capability of storing data shared by plurality of users in an efficiently and safely encrypted form (Shimizu, Col. 2, lines 35-40).

Regarding claims 11 and 22, Lida does not expressly disclose further comprising means for rewriting the part key data of an attribute file if a part corresponding to the respective part key data is edited.

Kihara discloses that the header contains an initial value for decrypting encrypted data (Col. 12, lines 10-26 and Col. 14, lines 12-19).

Kihara does not expressly disclose further comprising means for rewriting the part key data of an attribute file if a part corresponding to the respective part key data is edited.

However, Shimizu discloses further comprising means for rewriting the part key data (i.e., encryption key/temporary key) of an attribute file (i.e., file header) if a part corresponding to the respective part key data is edited (i.e., according to Shimizu, files are stored in the storage device in an encrypted form with the corresponding encryption key in the file header. If a file is to be accessed by an authorized user, the encryption key is retrieved from the header and the data portion is decrypted so user can access the content. At the time of storing the accessed/edited file, the data portion gets encrypted again, the encryption key will also get encrypted using master key and stored in the file header of the corresponding file)(Col. 7, lines 10-67 and Col. 8, lines 1-19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida and Kihara with the teachings of Shimizu to include the capability to store files in encrypted form with the corresponding encryption key in the file header with the motivation to provide for the

capability of storing data shared by plurality of users in an efficiently and safely encrypted form (Shimizu, Col. 2, lines 35-40).

Regarding claim 12 and 23, Lida does not expressly disclose encrypting a data file and storing the corresponding encryption key in the header file/attribute file.

However, Kihara discloses wherein each of the attribute files recorded in the data area further comprises encrypting key data for encrypting a data file, and the part key data in said each attribute file is encrypted according to the encrypting key data in said each attribute file (i.e., each block starts with a header and the header contains an initial value for decrypting encrypted data (Col. 12, lines 10-26 and Col. 14, lines 12-19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Lida with the teachings of Kihara to include the capability to store files in encrypted form with the corresponding encryption key in the file header with the motivation to protect the content of the file (i.e., music data)(Kihara, Col. 14, lines 12-19).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arezoo Sherkat whose telephone number is (703) 305-8749. The examiner can normally be reached on 8:00-4:30 Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Sherkat

Arezoo Sherkat
Patent Examiner
Art Unit 2131
March 1, 2004

Ayaz Sheikh

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SUPERVISORY PATENT EXAMINER
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